

ABSTRACT

Priority determining section 107 determines priority of each communication terminal apparatus based on the information indicating the channel quality of the downlink. Transmission destination determining section 108 estimates the direction in which each communication terminal apparatus exists from the information indicating the direction of arrival of the signal and determines the communication terminal apparatuses to which downlink high-speed packet transmission is performed based on the direction in which each communication terminal apparatus exists and priority. AAA transmission control section 154 calculates a transmission weight based on the direction of arrival of the signal sent from the communication terminal apparatus determined by transmission destination determining section 108. Then, AAA transmission control section 154 multiplies the signals sent from antenna elements 101 to 103 by transmission weights. When adaptive array is used, this makes it possible to carry out effective downlink high-speed packet transmission.

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